

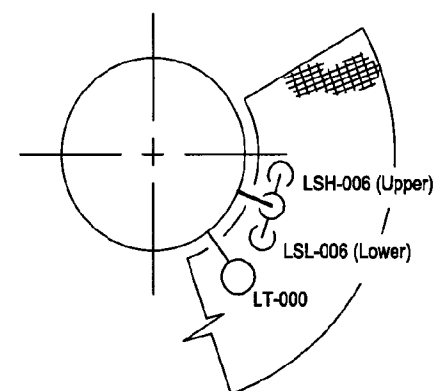
# Corrosion Report



Equipment Location ID 0955-009-008  
Equip. Location Descrip. C-1100 LEVEL INSTRUMENTS

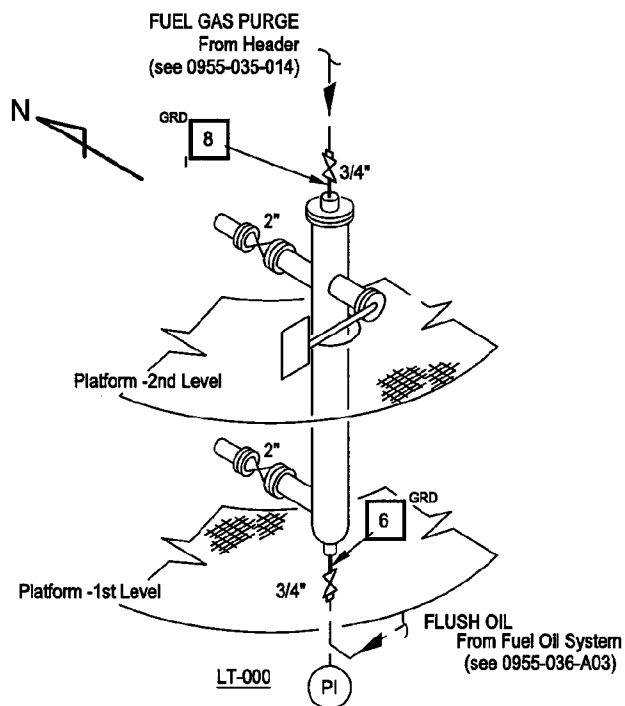
Remaining Life (Years) 8.34  
Retirement Date 08/07/2019  
Last Inspection Date 04/06/2011  
Next Inspection Date 06/06/2015  
Current Corrosion Rate 4.80

DP ID	MEAS METH	DP STAT	DP SZ	DT TYPE	BASE	MEAS 5	MEAS 4	MEAS 3	NEAR	LAST	MIN VALUE	CCR	REM LIFE
001.R	RT	A	2.00	PIPE	0.160 04/01			0.170 12/02	0.160 03/10	0.170 04/11	0.100	0.00	∞
002.R	RT	A	0.75	PIPE	0.180 04/01			0.180 12/02	0.180 12/02	0.170 04/11	0.100	1.20	58.33
003.R	RT	A	0.75	PIPE	0.150 04/01			0.170 12/02	0.160 03/10	0.170 04/11	0.100	0.00	∞
004.R	RT	A	0.75	RED	0.170 04/01			0.170 12/02	0.150 03/10	0.320 04/11	0.100	0.00	∞
005.R	RT	A	0.75	PIPE	0.180 12/02					0.140 04/11	0.100	4.80	8.34
006.R	RT	A	0.75	PIPE	0.130 04/01			0.140 12/02	0.160 03/10	0.160 04/11	0.100	0.00	∞
007.R	RT	A	2.00	ELL	0.150 12/02				0.150 08/05	0.140 04/11	0.100	1.78	22.45
008.R	RT	A	0.75	PIPE	0.180 12/02				0.160 01/08	0.160 04/11	0.100	2.40	25.01

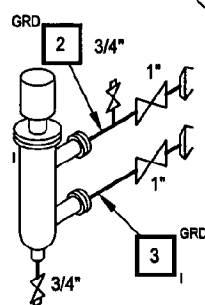
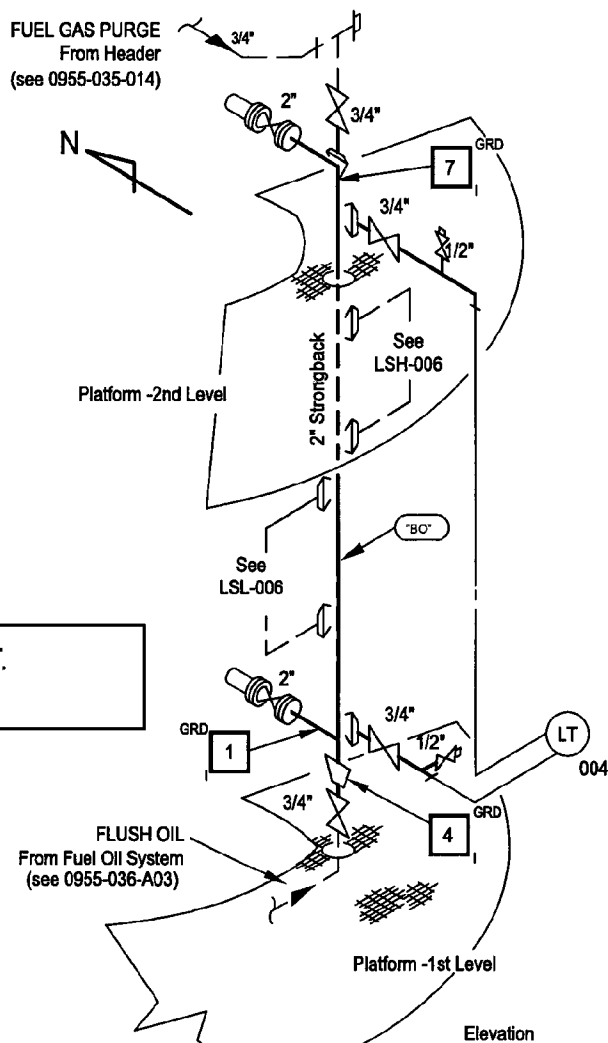


**C-1100**  
**ATMOSPHERIC COLUMN**  
**ORIENTATION PLAN**  
 (D-308308)

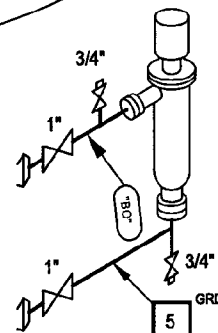
**THIS IS A HOT CIRCUIT.**  
**ALL TML's TO BE RT'd**



**C-1100 INSTRUMENTS**



**LSL-006**



**LSH-006**

REVISION		
3	UPDATED INSPECTION ISOMETRIC PER RFMS MAPPING PROJECT. FIELD VERIFIED BY Daniel Kavanagh	PHSC
	06/26/06	TPVA

STATUS: <b>ISO570 COMPLETE</b>		RATING? <input type="checkbox"/> 150# <input checked="" type="checkbox"/> 300#	API-570 <input type="checkbox"/> CLASS I <input checked="" type="checkbox"/> CLASS II <input type="checkbox"/> CLASS III
MATERIAL: <b>SCR</b>	SERVICE: <b>CRUDE</b>	STM TRACED? <input checked="" type="checkbox"/>	
PIPE CLASS: <b>"TF1"(BO)</b>	PWHT: <b>YES</b>	INSULATED? <input checked="" type="checkbox"/>	
LINE NAME: <b>C-1100 INSTRUMENTS</b>			
FROM: <b>C-1100</b>			
TO: <b>C-1100</b>			

04/11/2011 TTWV	<b>INSPECTION PIPING ISOMETRIC</b>	
	<b>#9 ATMOSPHERIC COLUMN BOTTOMS</b>	
	<b>#4 CRUDE UNIT (PLANT 11)</b>	
	<b>DISTILLATION AND REFORMING AREA BUSINESS UNIT</b>	
<b>Z</b>	<b>0955-009-008</b>	REV SHT 4 1



# History Brief

For Location ID: 0955-009-008 in Unit: 0955

Report Date: August 15, 2012

Data Source: Meridium

## Brief Data:

Date Not Available:	1/15/2007	Date Available:	01/15/2007
History Brief Date:	02/26/2007	History Brief ID:	VI-0702169686
Event Type:	Inspection	In- Service Date:	01/15/2007
Equipment ID:	0955-009-008	Critical:	L
Asset ID:	0000110998	Reference Material:	
Work Order Nbr:		Incident Event ID:	
History Type:	FXD	Inspection Date:	02/26/2007
Asset Type:	221	Inspection Type:	EVI
Cost Center:	K.DCRR100281		
Unit:	0955 - 4 CRUDE UNIT PLT 11		
Headline:	Fire Damage Assessment/No Damage Detected		

## Reliability Analysis:

Event Type:	Inspection	Worked Performed By:	Chevron Maintenance
Cause Category:	Information	Program Status:	
Effect Category:	Information	Maintainable Item:	Pipe Wall
Repair Location:		Permanent Repair WO:	
Temporary Repair:	No	Name:	DANM
Save:		Inspected By:	DANM

## Findings:

PCA ID:  
Inspectable:  
Sub Item:  
Part:  
Discussion:

Condition:  
Action:  
Location:  
Damage Mechanism:  
PCA Work Order No :

## Reliability Comments:

On 1/15/07, the # 4 Crude Unit was in the process of plant clean-up for the planned 1Qtr/07 major T/A. Well after feed was removed and approximately 6 hours into the cleanup, the wash oil piping failed where it ties into the P-1165A discharge spool. The leak immediately flashed and impinged on the East/West overhead pipeway between pipe supports 11J-18.5 and 11J-20.5. The fire also impinged on the tubes of the E-1100 A cells causing structural damage, tube failures and a secondary fire. Once the fire was controlled, the fire continued to burn for approximately 8 hours.

A fire damage assessment team determined the fire zones in accordance the API and MTI guidelines. In general, fire zones 5/6 (800 degF plus) were discovered in a 25 foot circumference surrounding the P-1165A. Fire Zone #4 (400-800 degF) extended approximately 10' beyond zone 5/6. Fire Zone #3 (150-400 degF) extended approximately 20' beyond Fire Zone #4. Fire Zone 2 was the area affected by firewater and pump deluge systems. Fire Zone #1 indicated no damage. Structure, electrical, instrumentation and machinery damage were covered by the representatives from the specific disciplines.

This line was located in fire zone 1-2. Inspection consisted of the following:

1. Visual inspection of the instrument piping with no damaged noted. The inspection was completed by Layne Larsen.



# History Brief

For Location ID: 0955-009-008 in Unit: 0955

Report Date: August 15, 2012

Data Source: Meridium

## Brief Data:

Date Not Available:	1/1/2006	Date Available:	01/01/2006
History Brief Date:	04/02/2012	History Brief ID:	VI-1204253765
Event Type:	Inspection	In- Service Date:	01/01/2006
Equipment ID:	0955-009-008	Critical:	L
Asset ID:	0000110998	Reference Material:	
Work Order Nbr:		Incident Event ID:	
History Type:	FXD	Inspection Date:	01/01/2006
Asset Type:	221	Inspection Type:	EVI
Cost Center:	K.DCRR100281		
Unit:	0955 - 4 CRUDE UNIT PLT 11		
Headline:	RFMS CUI PROJECT		

## Reliability Analysis:

Event Type:	Inspection	Worked Performed By:	PTS
Cause Category:	Information	Program Status:	
Effect Category:	Corrosion	Maintainable Item:	Pipe Wall
Repair Location:		Permanent Repair WO:	
Temporary Repair:		Name:	CSAA
Save:		Inspected By:	CSAA

## Findings:

PCA ID:  
Inspectable:  
Sub Item:  
Part:  
Discussion:

Condition:  
Action:  
Location:  
Damage Mechanism:  
PCA Work Order No :

## Reliability Comments:

X-ray was performed and no CUI was noted. Remaining wall thickness as per OSI data base.